

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Himke Van Der Velde, *et al.* §Group Art Unit: 2617  
Application No 10/552,295 §Examiner: Schwartz, Joshua L.  
Filed: 10/26/2006 §Con firmation No: 2060  
Attorney Docket No: P18216-US1  
Customer No.: 27045

For: Mechanisms For The Addition Of New System Information Block (SIB) Types In  
Telecommunication Message(s)

**Via EFS-Web**

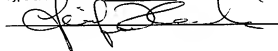
Mail Stop Appeal Brief - Patents  
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**APPEAL BRIEF SUBMITTED UNDER 35 U.S.C. §134**

This Appeal Brief is submitted to appeal the decision of the Primary Examiner, set forth in Final Official Action dated August 27, 2009, and the Advisory Action dated November 11, 2009, finally rejecting claims 8-10, 15-16, 47, 48 and 51, which are all of the pending claims in the application.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §41.20(b)(2) that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1379.

**Real Party in Interest**

The real party in interest, by assignment, is: Telefonaktiebolaget LM Ericsson (publ)  
SE-164 83  
Stockholm, Sweden

### **Related Appeals and Interferences**

None.

### **Status of Claims**

Claims 1-7, 17-30, and 36-38 were previously cancelled and are not appealed. Claims 8-16, 31-35, and 39-51 remain pending in the application, each of which are finally rejected. Claims 8-10, 15-16, 47, 48, and 51 are rejected as being anticipated by Wiberg, *et al.* (U.S. Patent No. 6,628,946); claims 11-14, and 45 are rejected as being unpatentable over Wiberg in view of Numminen, *et al.* (U.S. Patent Publication No. 2004/0120265); and, claims 31-35, 39-46 and 50 are rejected as being unpatentable over Wiberg in view of TS 25.331 (3GPP TS 25.331 v5.5.0 Release 5).

### **Status of Amendments**

The claims set out in the Claims Appendix include all entered amendments. No amendment has been filed subsequent to the final rejection.

### **Summary of Claimed Subject Matter**

<b>Claim Element</b>	<b>Specification Reference</b>
8. A method of operating a node of a telecommunications network which prepares network system information for transmission across an air interface to a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the referencing block being one or both of a master information block and a scheduling block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:	Figure 2; Paragraphs 0063 and 0066 Figure 3; Paragraphs 0070-0071 Figure 4; Paragraph 74, <i>et seq.</i>
including a first system information block type extension indicator in the system	Figure 4, Step 4-1 Paragraphs 74-75

information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;	
including a first system information block type extension field in the referencing block;	Figure 4, Step 4-2 Paragraph 75
including in the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and	Figure 4, Step 4-3 Paragraph 75
including a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.	Figure 4, Step 4-4 Paragraph 76

<b>Claim Element</b>	<b>Specification Reference</b>
15. A method for receiving network system information transmitted across an air interface from a network node at a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:	Figure 7; Paragraphs 0088-0089 Figure 9, Paragraph 0091
recognizing a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;	Figure 9, Step 9-1 Paragraph 0091 and Paragraph 0079
locating a first system information block	Figure 9, Step 9-2

type extension field in the referencing block; obtaining from the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and	Paragraph 0091 and Paragraph 0079 Figure 9, Step 9-3 Paragraph 0091 and Paragraph 0079
recognizing a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.	Figure 9, Step 9-4 Paragraph 0091 and Paragraph 0080

Claim Element	Specification Reference
47. A user equipment unit which receives network system information transmitted across an air interface from a network node, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block including one or more segments, comprising:	Figure 2; Paragraph 0063, 0067 Figure 6; Paragraph 0078, <i>et seq.</i>
means for recognizing a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;	Figure 6, Step 6-1 Paragraph 0079
means for locating a first system information block type extension field in the referencing block;	Figure 6, Step 6-2 Paragraph 0079
means for obtaining from the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and	Figure 6, Step 6-3 Paragraph 0079

means for recognizing a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.	Figure 6, Step 6-4 Paragraph 0080
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Claim Element	Specification Reference
51. A method for communicating network system information across an air interface between a network node and a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:	Figure 8, Paragraph 0090, <i>et seq.</i>
including a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;	Figure 8, Step 8-1 Paragraphs 74-75
including a first system information block type extension field in the referencing block;	Figure 8, Step 8-2 Paragraph 75
including in the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block;	Figure 8, Step 8-3 Paragraph 75
including a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block;	Figure 8, Step 8-4 Paragraph 76
transmitting the referencing block and the system information block from the network	Figure 2; Paragraph 0063, <i>et seq.</i>

node to the user equipment unit; recognizing that said first system information block type extension indicator in the system information block type field of the received referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in the nominal range of system information block type values;	Figure 9, Step 9-1 Paragraph 0091 and Paragraph 0079
locating said first system information block type extension field in the referencing block;	Figure 9, Step 9-2 Paragraph 0091 and Paragraph 0079
obtaining from the first system information block type extension field the system information block type extension value which indicates the system information block type for the system information block referenced by the referencing block; and	Figure 9, Step 9-3 Paragraph 0091 and Paragraph 0079
recognizing the second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.	Figure 9, Step 9-4 Paragraph 0091 and Paragraph 0080

The specification references listed above are provided solely to comply with the USPTO's current regulations regarding appeal briefs. The use of such references should not be interpreted to limit the scope of the claims to such references, nor to limit the scope of the claimed invention in any manner.

#### **Grounds of Rejection to be Reviewed on Appeal**

- 1.) Whether claims 8-10, 15-16, 47, 48, and 51 are anticipated by Wiberg, *et al.* (U.S. Patent No. 6,628,946);
- 2.) Whether claims 11-14, and 45 are unpatentable over Wiberg in view of Numminen, *et al.* (U.S. Patent Publication No. 2004/0120265); and,
- 3.) Whether claims 31-35, 39-46 and 50 are patentable over Wiberg in view of TS 25.331 (3GPP TS 25.331 v5.5.0 Release 5).

#### **Arguments**

1.) Claims 8-10, 15-16, 47, 48, and 51 are not anticipated by Wiberg, *et al.* (U.S. Patent No. 6,628,946)

The Examiner has rejected claims 8-10, 15-16, 47, 48, and 51 as being anticipated by Wiberg, *et al.* (U.S. Patent No. 6,628,946). It is important to remember that anticipation requires that the disclosure of a single piece of prior art reveals every element, or limitation, of a claimed invention. Furthermore, the limitation that must be met by an anticipatory reference are those set forth in each statement of function in a claims limitation, and such a limitation cannot be met by an element in a reference that performs a different function, even though it may be part of a device embodying the same general overall concept. Wiberg fails to disclose each and every limitation of claims 8-10, 15-16, 47, 48, and 51 and, therefore, those claims are not anticipated thereby.

Claim 8 recites:

8. A method of operating a node of a telecommunications network which prepares network system information for transmission across an air interface to a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the referencing block being one or both of a master information block and a scheduling block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:

including a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;

including a first system information block type extension field in the referencing block;

including in the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and

including a second system information block type extension indicator in the system information block type field of a segment of

the system information block referenced by the referencing block.  
(emphasis added)

### **Examiner's Response to Arguments**

In the Final Office Action dated August 27, 2009, the Examiner states that:

[In the previous action, the Examiner] noted that the disclosure of system information "tags" in Wiberg were equivalent, i.e. another name for, "system information block type extension field", and provided reasoning as to why one of ordinary skill in the art would consider this so. Examiner, in that action, acknowledged that Wiberg did not use the exact same terminology as Applicant, but that it did not matter as the elements were the same. Applicant's response, does not address this fact. Furthermore, Applicant did not provide any reasoning as to why these elements are not equivalent. Therefore in the absence of any such reasoning, Examiner maintains the [claim rejections]. (emphasis added)

The undersigned disagrees with the Examiner's assertion that the previously-submitted arguments did not: 1) address the Examiner's assertion that the system information "tags" taught by Wiberg were not the same as the "system information block type extension field" recited in claim 8; or 2) that Applicant did not provide any reasoning as to why those elements are not equivalent. The Examiner's two assertions are essentially the same; i.e., that the Applicant did not distinguish the claimed "system information block type extension field" from Wiberg's system information "tags." The undersigned disagrees with that characterization of the prior arguments.

First, as was noted in response to the office action dated February 19, 2009, the Applicants' claimed invention is directed to overcoming a limitation in the types of system information blocks (SIBs) available according to Technical Specification 3GPP TS 25.331. *To overcome the limited types of SIBs according to TS 25.331*, the claimed invention introduces the use of an SIB "type extension indicator" and a "type extension field." Although the teachings of Wiberg do relate, in part, to the use of SIBs, there is no teaching therein to include a SIB "type extension indicator" in an SIB type field "when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values." The Applicants' invention is characterized by the addition of a "type extension indicator" in an SIB type field. It is



the fact that an SIB type, outside of the nominal range of system information block types, is to be used for which Applicants have invented the use of a type extension indicator. If the SIB type to be used was within the nominal range, then it would simply be used; the use of a "type extension field," *however*, allows for the use of SIB types not envisioned, for example, by Technical Specification 3GPP TS 25.331.

The "tags" described by Wiberg are not equivalent to Applicants' claimed "type extension indicator." As described by Wiberg at column 3, line 24, *et seq.*:

"tags are broadcast in master information blocks. Tags are each associated with one or more system parameters. For example, a given tag value may be indicative of particular values for three separate system information parameters." (emphasis added)

Thus, Wiberg describes "tags" that are broadcast in master information blocks, not in an SIB type field. The undersigned has further reviewed the various portions of Wiberg referenced by the Examiner in his rejection of claim 8, but can find no teaching therein of anything equivalent to an SIB type extension indicator that is used *in* an SIB type field to indicate the type of a conveyed SIB when the type of the SIB is not one of the original SIB types defined in the early versions of TS 25.331; *i.e.*, "when the system information block type . . . *does not have a system information block type value in a nominal range of system information block type values.*" Therefore, Wiberg fails to anticipate claim 8.

Whereas independent claims 15, 47 and 51 recite limitations analogous to those of claim 8, they are also not anticipated by Wiberg. Furthermore, whereas claims 9 and 10 are dependent from claim 8, claim 16 is dependent from claim 15, and claim 48 is dependent from claim 47, and include the limitations of their respective base claims, those claims are also not anticipated by Wiberg.

**2.) Claims 11-14, and 45 are patentable over Wiberg in view of Numminen, *et al.* (U.S. Patent Publication No. 2004/0120265)**

As established *supra*, Wiberg fails to teach the use of an SIB "type extension indicator" or an SIB "type extension field" as recited in independent claims 8, 15 and 47. The Examiner does not point to any teaching in Numminen of such elements and, therefore, claims 11-14 and 45, which are dependent from claims 8 and 15,

respectively, and include the limitations thereof, are not obvious over Wiberg in view of Numminen.

**3.) Claims 31-35, 39-46 and 50 are patentable over Wiberg in view of TS 25.331 (3GPP TS 25.331 v5.5.0 Release 5)**

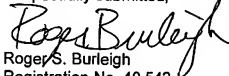
As established *supra*, Wiberg fails to teach the use of an SIB “type extension indicator” or an SIB “type extension field” as recited in independent claims 8, 15 and 47. The Examiner does not point to any teaching in TS 25.331 of such elements, and, therefore, claims 31-35, 39-46 and 50, which are dependent from claims 8, 15 and 47, respectively, and include the limitations thereof, are not obvious over Wiberg in view of TS 25.331.

\* \* \*

### CONCLUSION

Claims 8-16, 31-35 and 39-51 are patentable over the prior art of record, and the Applicant requests that the rejections thereof be reversed and the application be remanded for further prosecution.

Respectfully submitted,



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Date: February 22, 2010

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## CLAIMS APPENDIX

1-7. (Cancelled)

8. (Previously Presented) A method of operating a node of a telecommunications network which prepares network system information for transmission across an air interface to a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the referencing block being one or both of a master information block and a scheduling block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:

including a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;

including a first system information block type extension field in the referencing block;

including in the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and

including a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.

9. (Previously Presented) The method of claim 8 further comprises the steps of:

including a second system information block type extension field in the segment of the system information block referenced by the referencing block; and

including in the second system information block type extension field the system information block type extension value which indicates the system information block type for the system information block referenced by the referencing block.

10. (Previously Presented) The method of claim 9, further comprising the step of including the second system information block type extension field in a data field of the segment.

11. (Original) The method of claim 10, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, and wherein the system information block type extension field occupies three bits of the data field of the segment.

12. (Previously Presented) The method of claim 8, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, wherein the referencing block is a master information block, and wherein the system information block type field for the master information block is an "SIB and SB type" information element.

13. (Previously Presented) The method of claim 8, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, wherein the referencing block is a scheduling block, and wherein the system information block type field for the scheduling information block is an "SIB type SIBS only" information element.

14. (Previously Presented) The method of claim 8, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, and wherein in the system information block the system information block type field includes a "SIB Type" information element.

15. (Previously Presented) A method for receiving network system information transmitted across an air interface from a network node at a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing

block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:

recognizing a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values ;

locating a first system information block type extension field in the referencing block;

obtaining from the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and

recognizing a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.

16. (Previously Presented) The method of Claim 15 further comprising the steps of:

locating a second system information block type extension field in the segment of the system information block referenced by the referencing block; and

obtaining from the second system information block type extension field the system information block type extension value which indicates the system information block type for the system information block referenced by the referencing block.

17-30. (Cancelled)

31. (Previously Presented) The method of Claim 8 comprising the step of:

including in the referencing block a code set identifier which identifies a selected one of plural code sets for use in interpreting the system information block type value

included in the system information block type field of the system information block referenced by the referencing block.

32. (Original) The method of claim 31, wherein  
a first value for the code set identifier requires that the system information block type value be interpreted in accordance with a range of nominal system information block type values for a predetermined protocol; and

a second value for the code set identifier requires that the system information block type value be interpreted in accordance with a range of extended system information block type values, the extended system information block type values being outside the range of nominal system information block type values.

33. (Previously Presented) The method of claim 31, further comprising including the code set identifier in an extension field of the referencing block.

34. (Previously Presented) The method of claim 31, further comprising formatting the system information block and the referencing block in accordance with a predetermined protocol.

35. (Original) The method of claim 34, wherein the predetermined protocol is a Radio Resource Control (RRC) protocol.

36-38. (Cancelled)

39. (Previously Presented) The method of claim 15, further comprising the steps of:

obtaining from the referencing block, a code set identifier which identifies a selected one of plural code sets; and

using the selected one of the plural code sets for interpreting the system information block type value included in the system information block type field of the system information block referenced by the referencing block.

40. (Previously Presented) The method of claim 39, wherein  
a first value for the code set identifier requires that the system information block type value be interpreted in accordance with a range of nominal system information block type values for a predetermined protocol; and  
a second value for the code set identifier requires that the system information block type value be interpreted in accordance with a range of extended system information block type values, the extended system information block type values being outside the range of nominal system information block type values.
41. (Previously Presented) The method of claim 39, obtaining the code set identifier from an extension field of the referencing block.
42. (Previously Presented) The method of claim 39 deformatting the system information block and the referencing block in accordance with a predetermined protocol.
43. (Previously Presented) The method of claim 42, wherein the predetermined protocol is a Radio Resource Control (RRC) protocol.
44. (Previously Presented) The method of claim 39, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, and wherein the referencing block is a master information block, and wherein the system information block type field for the master information block is an "SIB and SB type" information element.
45. (Previously Presented) The method of claim 39, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, and wherein the referencing block is a scheduling block, and wherein the system information block type field for the scheduling information block is an "SIB type SIBS only" information element.



46. (Previously Presented) The method of claim 39, wherein the protocol blocks belong to a Radio Resource Control (RRC) protocol, and wherein in the system information block the system information block type field includes a "SIB Type" information element.

47. (Previously Presented) A user equipment unit which receives network system information transmitted across an air interface from a network node, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block including one or more segments, comprising:

means for recognizing a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;

means for locating a first system information block type extension field in the referencing block;

means for obtaining from the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block; and

means for recognizing a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.

48. (Previously Presented) The user equipment unit of Claim 47 further comprising:

means for locating a second system information block type extension field in the segment of the system information block referenced by the referencing block; and

means for obtaining from the second system information block type extension field the system information block type extension value which indicates the system information block type for the system information block referenced by the referencing block.

49. (Previously Presented) The user equipment unit of Claim 48 further comprising:

means for obtaining, from the referencing block, a code set identifier which identifies a selected one of plural code sets; and

means for using the selected one of the plural code sets for interpreting the system information block type value included in the system information block type field of the system information block referenced by the referencing block.

50. (Previously Presented) The user equipment unit of Claim 49, wherein a first value for the code set identifier requires that the system information block type value be interpreted in accordance with a range of nominal system information block type values for a predetermined protocol; and

a second value for the code set identifier requires that the system information block type value be interpreted in accordance with a range of extended system information block type values, the extended system information block type values being outside the range of nominal system information block type values.

51. (Previously Presented) A method for communicating network system information across an air interface between a network node and a user equipment unit, the system information including a system information block type which is included in protocol blocks, the protocol blocks being a system information block and a referencing block, the protocol blocks in which the system information is included having a system information block type field which includes a system information block type value which corresponds to the system information block type, the system information block comprising one or more segments, comprising the steps of:

including a first system information block type extension indicator in the system information block type field of the referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a nominal range of system information block type values;

including a first system information block type extension field in the referencing block;

including in the first system information block type extension field a system information block type extension value which indicates a system information block type for the system information block referenced by the referencing block;

including a second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block;

transmitting the referencing block and the system information block from the network node to the user equipment unit;

recognizing that said first system information block type extension indicator in the system information block type field of the received referencing block when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in the nominal range of system information block type values ;

locating said first system information block type extension field in the referencing block;

obtaining from the first system information block type extension field the system information block type extension value which indicates the system information block type for the system information block referenced by the referencing block; and recognizing the second system information block type extension indicator in the system information block type field of a segment of the system information block referenced by the referencing block.

**EVIDENCE APPENDIX**

None.

**RELATED PROCEEDINGS APPENDIX**

None.